

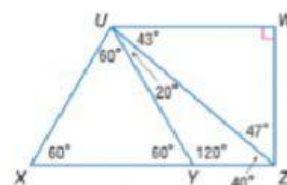
# AJMAN GIRLS SCHOOL FOR SECONDARY EDUCATION

## CLASS – 9A(MATHEMATICS)

### REVISION WORKSHEET

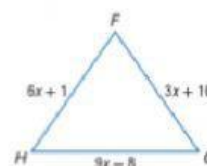
1. Identify the type of adjoining triangle XUZ.

a) Acute  
b) Obtuse  
c) Equiangular  
d) Right



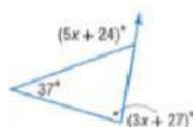
2. What will be the length of each side of  $\triangle FGH$ , if  $\triangle FGH$  is an equilateral triangle.

a) 19  
b) 3  
c) 6  
d) 18



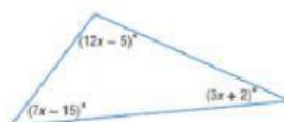
3. Find the value of  $x$

a) 3  
b) 19  
c) 116  
d) None of these



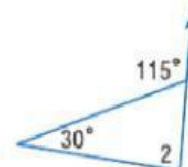
4. Find the value of  $x$ .

a) 19  
b) 9  
c) 198  
d) 180



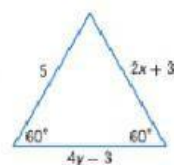
5. Find the measure of  $m\angle 2$ .

a.  $115^\circ$   
b.  $30^\circ$   
c.  $180^\circ$   
d.  $85^\circ$



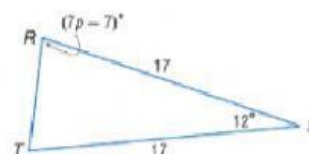
6. Identify the value of  $x$ .

a) -1  
b) 2  
c) -2  
d) 1



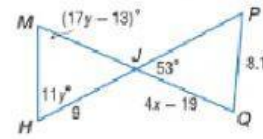
7. Identify the value of  $p$ .

a) -13  
b) 13  
c) 16  
d) 1



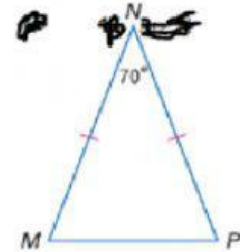
8. If  $\triangle MHJ \cong \triangle PQJ$ , identify the value of  $y$ .

- a) 5
- b) -5
- c) 7
- d) None of these.



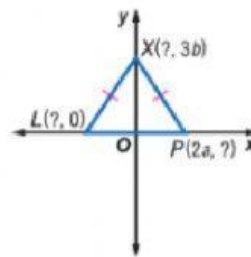
9. In an isosceles triangle which of the following is not true.

- a) Two sides are equal.
- b) Base angles are equal.
- c) All angles are  $60^\circ$  each.
- d) The two congruent sides are called the legs of an isosceles triangle.



10. Find the  $m\angle NMP$  in adjoining figure.

- a)  $110^\circ$
- b)  $35^\circ$
- c)  $50^\circ$
- d)  $55^\circ$

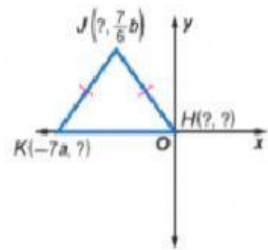


11. Identify the coordinates of point  $L$ .

- A) (0,0)
- B)  $(-2a, 0)$
- C)  $(0, 2a)$
- D)  $(2a, 0)$

12. Identify the coordinates of  $J$  and  $K$ .

- a)  $J(\frac{7}{2}a, \frac{7}{6}b)$  and  $K(-7a, b)$
- b)  $J(\frac{7}{3}a, \frac{7}{6}b)$  and  $K(7a, 0)$
- c)  $J(-\frac{7}{2}a, \frac{7}{6}b)$  and  $K(-7a, 0)$
- d)  $J(3.5a, \frac{7}{6}b)$  and  $K(-7a, b)$

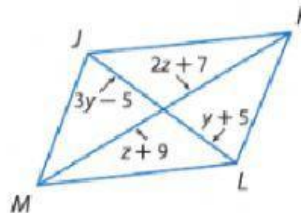


13. Identify the type of congruence transformation triangles with  $A(3, 9)$ ,  $B(3, 7)$ ,  $C(7, 7)$  and  $S(3, 5)$ ,  $T(3, 3)$ ,  $R(7, 3)$  will have?

- a) Only reflection
- b) Only translation
- c) Only rotation
- d) None of these

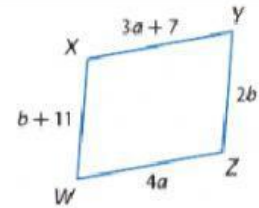
14. For what value of  $y$ , JKLM is a parallelogram?

- a) -5
- b) 10
- c) 5
- d)  $\frac{10}{6}$



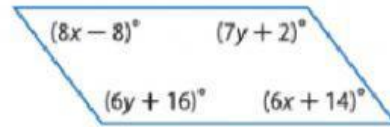
15. For what values of  $a$  and  $b$ ,  $XYZW$  is a parallelogram?

- a)  $a = -7, b = 11$
- b)  $a = 7, b = 11$
- c)  $a = 7, b = 5.5$
- d)  $a = 7, b = \frac{11}{3}$



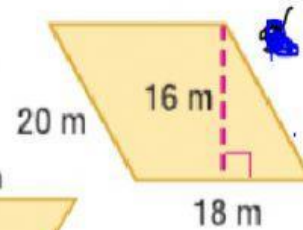
16. For what values of  $x$  and  $y$  the adjoining quadrilateral is a parallelogram?

- a.  $x = 11, y = 18$
- b.  $x = -11, y = 8$
- c.  $x = 22, y = 16$
- d.  $x = 11, y = 14$



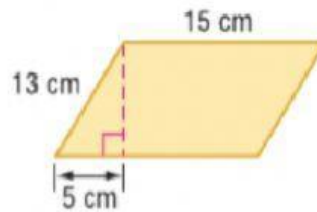
17. What is the area of the adjoining figure?

- a)  $360 m^2$
- b)  $288 m$
- c)  $360 m$
- d)  $288 m^2$



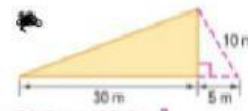
18. What is the perimeter of the adjoining figure?

- a)  $28 cm$
- b)  $28 cm^2$
- c)  $56 cm$
- d)  $40 cm$



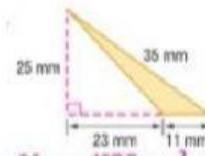
19. What is the area of the adjoining figure?

- a)  $129.9 m^2$
- b)  $130 m^2$
- c)  $129.7 m^2$
- d)  $129 m^2$



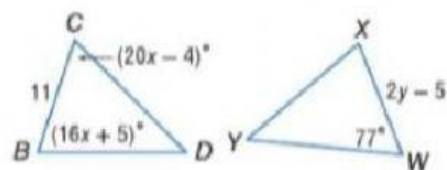
20. What is the perimeter of the adjoining figure?

- a)  $88 mm$
- b)  $80 mm$
- c)  $137.5 mm^2$
- d)  $137.5 m$



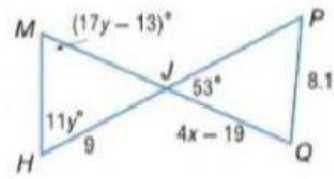
21. Identify the values of  $x$  and  $y$ , if  $\triangle BCD \cong \triangle WXY$

- a)  $x = 4.5$  and  $y = -8$
- b)  $x = 5$  and  $y = -8$
- c)  $x = 4.5$  and  $y = 8$
- d)  $x = -4.5$  and  $y = -8$



22. Identify the values of  $x$  and  $y$ , if  $\triangle MHJ \cong \triangle PQJ$

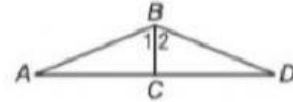
- a)  $x = 7$  and  $y = 5$
- b)  $x = 5$  and  $y = 7$
- c)  $x = 5$  and  $y = 5$
- d)  $x = 7$  and  $y = 7$



23. Given :  $\overline{BC}$  is perpendicular to  $\overline{AD}$ ;  $\angle 1 \cong \angle 2$

Which theorem or postulate could be used to prove  $\triangle ABC \cong \triangle DCB$ ?

- a) AAS
- b) ASA
- c) SAS
- d) SSS



Refer to the figure at the right, answer the followings

24. .

If  $\angle DAE \cong \angle ADE$ , name two congruent segments.

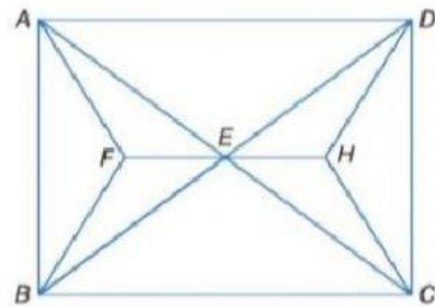
If  $\angle BAF \cong \angle ABF$ , name two congruent segments.

If  $\overline{CE} \cong \overline{BE}$ , name two congruent angles.

If  $\angle CDE \cong \angle DCE$ , name two congruent segments.

If  $\overline{AE} \cong \overline{DE}$ , name two congruent angles.

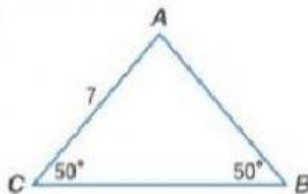
If  $\overline{DH} \cong \overline{CH}$ , name two congruent angles.



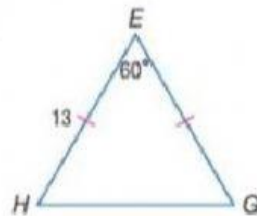
25. .

Find each measure.

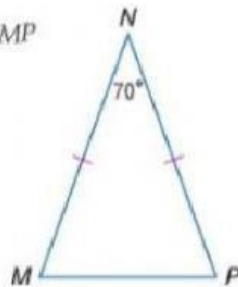
14.  $AB$



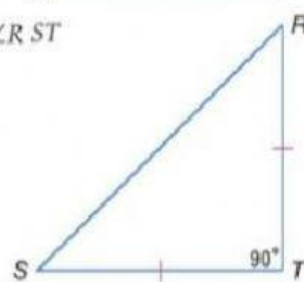
15.  $HG$



16.  $m\angle NMP$



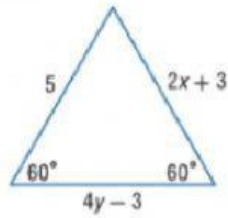
17.  $m\angle RST$



**Find the value of each variable**

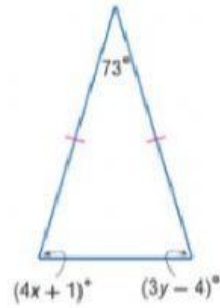
26.  $x =$

$y =$

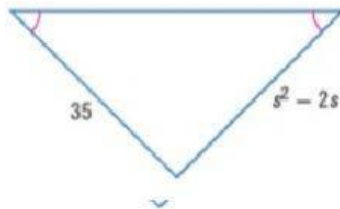


27.  $x =$

$y =$

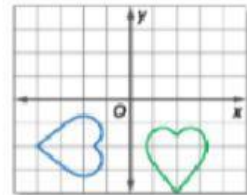


28.  $s =$



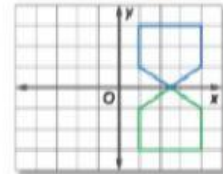
29. Identify the type of congruence transformation shown in the adjoining figure.

- a) Only reflection
- b) Only translation
- c) Only rotation
- d) Reflection or translation.



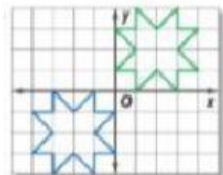
30. Identify the type of congruence transformation shown in the adjoining figure.

- a) Only reflection
- b) Only translation
- c) Only rotation
- d) Reflection or translation.



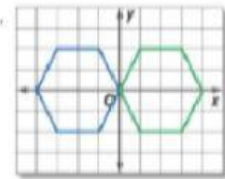
31. Identify the type of congruence transformation shown in the adjoining figure.

- a) Only reflection
- b) Only translation
- c) Only rotation
- d) All the above



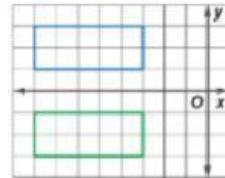
32. Identify the type of congruence transformation shown in the adjoining figure.

- a) Only reflection
- b) Only translation
- c) Only rotation
- d) All the above



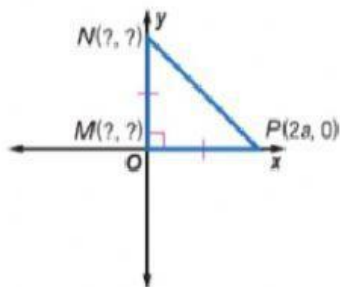
33. Identify the type of congruence transformation shown in the adjoining figure.

- a) Only reflection
- b) Only translation
- c) Only rotation
- d) Reflection or translation.

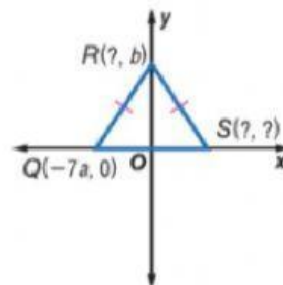


**Name the missing coordinate(s) of each triangle. (Use bracket () to write answers, if required)**

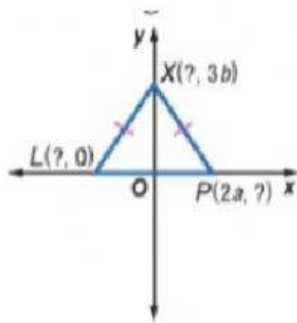
34.  $N =$   $M =$



35.  $R =$   $S =$

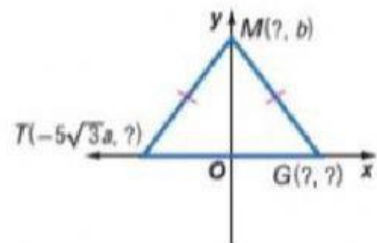
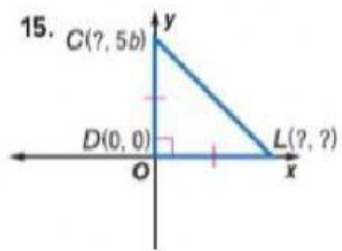


36.  $X =$                        $L =$                        $P =$



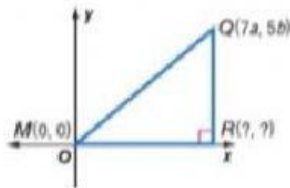
38.  $M =$                        $G =$                        $G =$

37.  $C =$                        $L =$





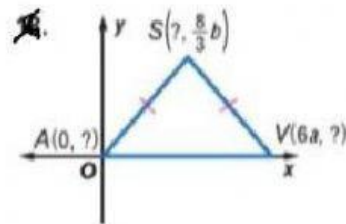
39.  $R =$



40.  $A =$

$S =$

$V =$



41. .

The height of a parallelogram is 4 millimeters more than its base. If the area of the parallelogram is 221 square millimeters, find its base and height.

Base =

height =

42. .

**GAMES** A video game store has 60 games to choose from, including 40 sports games. What is the ratio of sports games to video games?

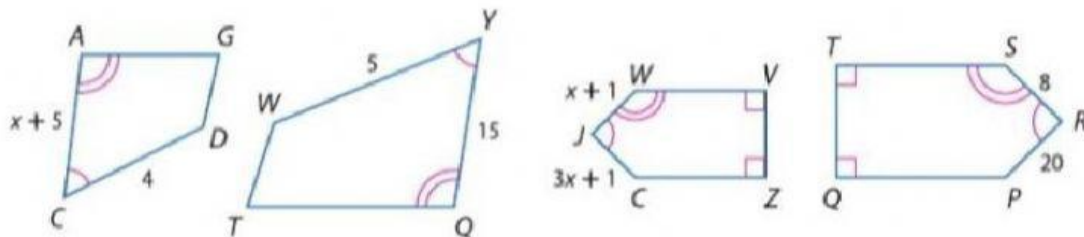
43. The ratio of the measures of three sides of a triangle is 9 : 7 : 5. Its perimeter is 191.1 inches. Which of the following is not the measure of the sides of triangle?

- a) 81.9 in
- b) 63.7 in
- c) 45.5 in
- d) 40.2 in

44. .

The perimeter of a rectangle is 220 inches. The ratio of its length to its width is 7:3. Find the area of the rectangle.

45. Each pair of polygon is similar. Find the value of  $x$ .



46. .

Rectangle  $ABCD$  has a width of 8 meters and a length of 20 meters. Rectangle  $QRST$ , which is similar to rectangle  $ABCD$ , has a length of 40 meters. Find the scale factor of rectangle  $ABCD$  to rectangle  $QRST$  and the perimeter of each rectangle.

Scale factor

Perimeter of  $ABCD$

Perimeter of  $QRST$

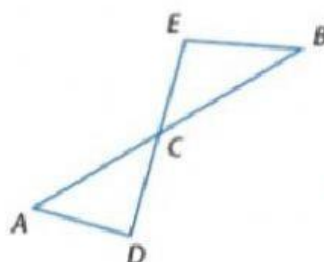


47. Two similar rectangles have a scale factor of 3:5. The perimeter of the large rectangle is 65 meters. What is the perimeter of the small rectangle?

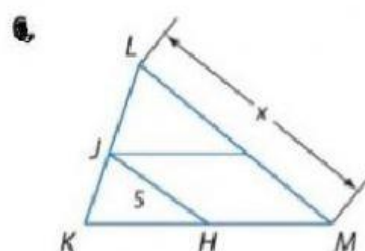
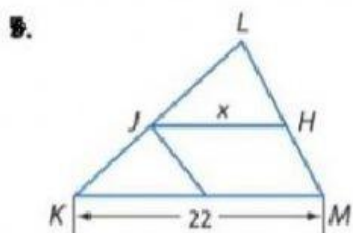
F 29 m                      H 49 m  
G 39 m                      J 59 m

48. **MULTIPLE CHOICE** In the figure,  $\overline{AB}$  intersects  $\overline{DE}$  at point C. Which additional information would be enough to prove that  $\triangle ADC \cong \triangle BEC$ ?

A  $\angle DAC$  and  $\angle ECB$  are congruent.  
B  $\overline{AC}$  and  $\overline{BC}$  are congruent.  
C  $\overline{AD}$  and  $\overline{EB}$  are parallel.  
D  $\angle CBE$  is a right angle.



49.  $\overline{JH}$  is a midsegment of  $\triangle KLM$ . Find the value of  $x$ .



50. **ALGEBRA** Find  $x$  and  $y$ .

